

Section A of this chapter provides guidance for addressing common arguments made by violators. Section B discusses how to characterize more complicated compliance scenarios.

A. COMMON VIOLATOR ARGUMENTS

1. *Cost of roof on new treatment building should be excluded since roof is not needed to operate treatment system.*

In virtually all cases BEN should include the cost of the roof unless the violator can conclusively prove that the treatment system would operate just as effectively and efficiently without the roof (all else being equal) and that the roof is not a customary part of such treatment systems. A violator can almost never support this claim, since it must essentially argue that installing a roof was a waste of money (serving no sensible business purpose).

2. *Cost of painting walls and landscaping treatment building should be excluded since they are unnecessary for compliance.*

While such items may not be directly necessary to achieve compliance, if these items are normally part of such projects, then BEN should include their costs. Such expenditures often provide intangible and tangible benefits, such as improving the appearance of the facility, reducing erosion and dust, preserving the building, and creating a more attractive environment for employees, visitors, and customers. Presumably these expenditures would have been necessary for on-time compliance, and hence the violator benefitted by delaying them.

3. *Cost of an extra (backup) pump should be excluded, since it is unlikely ever to be used.*

While the pump may never be used, if reasonable engineering practice would include an extra pump (or any other backup systems), then BEN should include its cost. Given that the violator did (or will) purchase the extra pump, the burden is on the violator to show that it is unnecessary to achieve and consistently maintain compliance. Further, even if the cost of the extra pump were subtracted from the capital investment, annual operation and maintenance costs might need to be increased to reflect the greater importance of maintaining the existing pumps.

4. *Cost of building second floor above treatment plant should be excluded since it is used exclusively for purposes unrelated to compliance.*

If the second floor does not support the pollution control system, then the incremental cost of building the second floor may be subtracted from the capital investment.

5. *Cost of building tertiary treatment system should be excluded since only primary and secondary treatment systems were necessary to remedy violations.*

If the tertiary treatment system really was unnecessary to prevent the violations alleged in the complaint, but rather is necessary for achieving compliance with future standards, then subtract its cost from the capital investment. Recall that the capital investment should reflect the pollution control system that was necessary to remedy the violations at the time and under the conditions alleged in the complaint. The violator, however, must convince EPA that the additional cost is truly unrelated to remedying the violations alleged in the complaint.

6. *No additional labor is necessary to operate new pollution control system, since existing employees operating old system will operate it.*

If the existing employees were operating an old pollution control system replaced by the new system, then this claim may be correct. Presumably the total labor costs associated with the old pollution control system (replaced by the new system) are less than or equal to the labor costs for the new system. If the new system is more efficient to operate, even less labor may be required. Your entry for annually recurring costs should reflect this and can even be negative.

7. *Labor costs for new system are really zero because we are reassigning workers from another part of plant; thus, since we are not hiring additional workers to run system, we have no incremental labor costs.*

This claim is not correct since the employees who will operate the new system are not coming from the old pollution control system that is being replaced. Rather, they are coming from

another part of the facility and the facility will be deprived of the productive work these employees were doing. If the violator had complied on-time, it would have had to shift these employees to pollution control and given up the work these employees otherwise would have done somewhere else (e.g., the production line) during the period of noncompliance. This is the concept of opportunity cost: the cost of resources for a particular use is measured by the benefit lost in forfeiting their most profitable alternative use.

B. CHARACTERIZING COMPLIANCE SCENARIOS

1. *Violator Spends \$100,000 on System that Does Not Work.*

The violator should have spent \$1,000,000 to install a satisfactory system, but instead spent \$100,000 on-time for a system that did not work. If the system did not result in compliance, it is questionable that the system's expenditures were in fact intended for compliance. Unless some other factor is present, the correct entry for the capital cost should be \$1,000,000.

The enforcement team might find that the violator had some reasonable basis or justification for selecting the inexpensive technology. If the violator went to a reputable firm, the firm recommended the system that failed, and the violator's reliance on the recommendation was reasonable, then a substantial adjustment may be appropriate. The lowest capital investment entry in BEN would be \$900,000, reflecting \$100,000 already spent, although this is a case-specific judgement for the litigation team.

2. *System "Works," But Is Too Small.*

The violator spent \$100,000 on-time for a system that was too small to solve the pollution problem, but the existing system can be incorporated into the final, fully sized system. The Agency should subtract from the total required investment the \$100,000 already spent; the BEN capital investment input would be \$900,000. The reason for this treatment is that the violator gained a benefit on only the \$900,000 that it did not spend, not the \$100,000 it did spend.

3. *Same as Scenario 2, But Violator Has Letter from Government Official Approving System.*

While the violator has a reason for being out of compliance, it still had the benefit of using the \$900,000 for other purposes while it was in violation. Thus, BEN's capital investment is still \$900,000. BEN is "no-fault" in nature. Regardless of how good the violator's excuse is, it still had the use of the \$900,000 over the period of the violation. The only difference between this and scenario 2 is the existence of an arguable approval by the regulatory agency, but this is a legal distinction, not an economic one, possibly affecting the gravity component of the penalty, but not the economic benefit component.

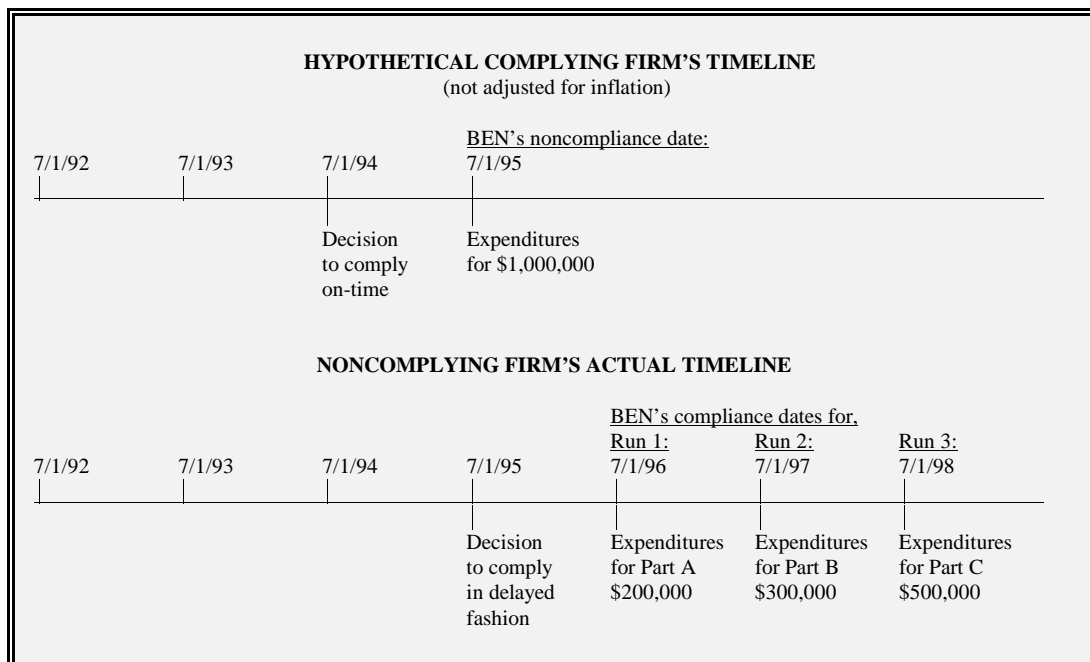
4. *Violator Complies in Stages.*

The violator put part of the pollution system into operation (with actual pollution reduction) one year after the noncompliance date at a cost of \$200,000. One year later (and two years after the noncompliance date), the violator put a second piece of the system costing \$300,000 into operation (which resulted in additional pollution reduction). Three years later the entire system was in operation, and the final piece cost \$500,000.

If on-time compliance could have been achieved in one stage instead of three (see timeline below), create three separate BEN runs, each with the same noncompliance date:

- \$200,000 capital investment, and a one-year period of noncompliance;
- \$300,000 capital investment, and a two-year period of noncompliance;
- \$500,000 capital investment, and a three-year period of noncompliance.

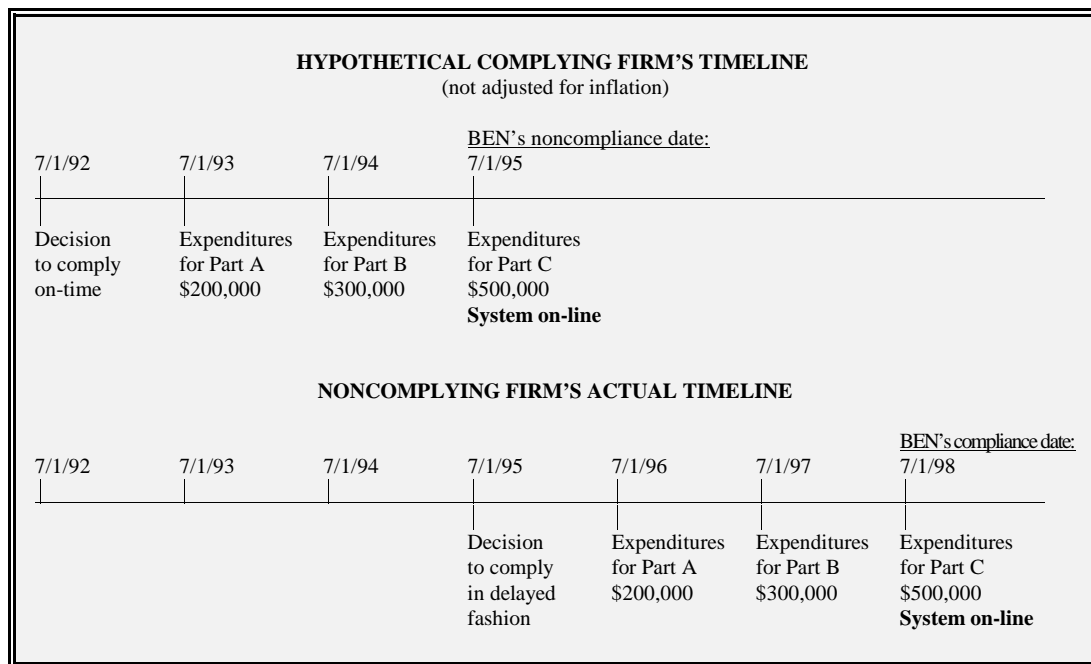
As the violator paid for each component, it was no longer delaying the purchase of that equipment. Add the results from the three runs to determine the total economic benefit.



5. System is Operational at Conclusion of Series of Expenditures.

This is similar to scenario 4 (where the violator purchased and installed the various system components over three years), except that here the system is put into operation only after all of its components are installed, instead of sequentially.

You should create one BEN run with a capital investment of \$1,000,000 and a three-year noncompliance period. This assumes that on-time compliance would have been accomplished the same way as delayed compliance, in three separate stages. For both on-time and delayed compliance, three years are necessary to comply, and therefore if the violator had complied on time it would have needed to start three years before the compliance date.



Note that BEN's calculation here is based upon the simplifying assumption that all the money was spent on a single date, i.e., the day compliance was achieved. Instead of this simplifying assumption, you could instead create three separate BEN runs, with different noncompliance and compliance dates (yet hence the same-length noncompliance period). This will yield a slightly higher BEN result, although the additional complexity may not be worth the additional accuracy (especially if the noncompliance period is long relative to the period over which the actual expenditures are spread out).

6. *Pollution Control Equipment Will Be Leased, Not Purchased.*

The violator is actually leasing the equipment it needs to comply for \$125,000 per year. Rather than entering the \$1,000,000 as a capital cost, you should enter a zero for capital investment and \$125,000 as an annually recurring cost.

7. *Compliance is “Cheaper” than Noncompliance.*

The violator comes into compliance late and finds that it has been saving money since it installed the new technology. This may occur because the compliant technology allows the violator to recover materials and/or reduce operation and maintenance costs. BEN produces a negative result, seemingly confirming that the violator would have been better off had it complied on-time. Other factors may have caused the violator to delay compliance, or perhaps the violator was unaware not only of the potential cost savings from compliance but also the status of its noncompliance.

Be wary of such negative economic benefit results! For example, the violator might have felt that the new processes and technology needed to comply would have adversely affected its product quality. In that case, the violator probably realized an economic benefit from not having its product quality adversely affected by the compliant technology. This constitutes illegal competitive advantage, and typically requires additional research into the alternative compliance scenarios and their financial impacts.

Even if the economic benefit really is negative, the enforcement team should carefully consider the appropriate gravity component of the penalty, since the violations might still be serious, despite the lack of economic gain to the violator.